

## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 7 : A61L 27/26, 27/56, 29/06, 29/14, 31/06, 31/14	A1	(11) International Publication Number: WO 00/67815 (43) International Publication Date: 16 November 2000 (16.11.00)
--	----	--

(21) International Application Number: PCT/IE00/00059

(22) International Filing Date: 8 May 2000 (08.05.00)

## (30) Priority Data:

PCT/IE99/00037	7 May 1999 (07.05.99)	IE
PCT/IE99/00038	7 May 1999 (07.05.99)	IE

(71) Applicant (for all designated States except US): SALVIAC LIMITED [IE/IE]; 39-40 Upper Mount Street, Dublin 2 (IE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): BRADY, Eamon [IE/IE]; 12 Karol Avenue, Elphin, County Roscommon (IE). CANNON, Ann, Marie [IE/IE]; Main Street, Pettigo, County Donegal (IE). FARRELL, Fergal [IE/IE]; Sherriff Hill, Moone, Athy, County Kildare (IE). MCCAFFREY, Gerard [IE/IE]; 82 Riasc Na Ri, Old Ragoon Road, Galway (IE).

(74) Agents: O'BRIEN, John, A. et al.; John A. O'Brien &amp; Associates, Third Floor, Duncairn House, 14 Carysfort Avenue, Blackrock, County Dublin (IE).

(81) Designated States: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DE (Utility model), DK, DK (Utility model), DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published

With international search report.

(54) Title: A TISSUE ENGINEERING SCAFFOLD

## (57) Abstract

A tissue engineering scaffold for cell, tissue or organ growth comprises a biocompatible porous polyurethane cellular material comprising a plurality of substantially spherical voids of diameter from 20 to 300 microns, preferably 80 to 200 microns, interconnected by generally elliptically shaped pores. The cellular material has a void content of from 85 % to 98 % and a surface area to volume of from 5 to 400mm<sup>2</sup>/mm<sup>3</sup>, ideally from 20 to 80mm<sup>2</sup>/mm<sup>3</sup>.

